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Translation

PATENT COOPERATION TREATY

PCT/JP2003/016804



PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference pf-3234	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/JP2003/016804	International filing date (day/month/year) 25 December 2003 (25.12.2003)	Priority date (day/month/year) 25 December 2002 (25.12.2002)
International Patent Classification (IPC) or national classification and IPC G01R 31/26		
Applicant NEC CORPORATION		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 3 sheets, including this cover sheet.

☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of \_\_\_\_\_ sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 25 December 2003 (25.12.2003)	Date of completion of this report 07 December 2004 (07.12.2004)
Name and mailing address of the IPEA/JP	Authorized officer
Facsimile No.	Telephone No.

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/JP2003/016804

## I. Basis of the report

### 1. With regard to the elements of the international application:\*

- ☒ the international application as originally filed
- ☐ the description:  
 pages \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☐ the claims:  
 pages \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, as amended (together with any statement under Article 19  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☐ the drawings:  
 pages \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☐ the sequence listing part of the description:  
 pages \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_

### 2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item. These elements were available or furnished to this Authority in the following language \_\_\_\_\_ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

### 3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

### 4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets/fig \_\_\_\_\_

### 5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\*

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

\*\* Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/JP03/16804

## V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

### 1. Statement

Novelty (N)

Claims

1-26

YES

Claims

NO

Inventive step (IS)

Claims

3-4, 9

YES

Claims

1, 2, 5-8, 10-26

NO

Industrial applicability (IA)

Claims

1-26

YES

Claims

NO

### 2. Citations and explanations

Document 1: JP, 2002-214279, A (Yugen Kaisha Akita Kaihatsu Center ARD), 31 July, 2002 (31.07.02)

Document 2: JP, 11-154696, A (NEC Corp.), 8 June, 1999 (08.06.99)

Document 3: JP, 5-166909, A (Fujitsu, Ltd.), 2 July, 1993 (02.07.93)

Document 4: JP, 6-266789, A (Toshiba Corp.), 22 September, 1994 (22.09.94)

Document 5: JP, 7-6599, A (SGS-Thomson Microelectronics s.r.l.), 10 January, 1995 (10.01.95)

Claims 1, 6 and 11

Documents 1 and 2 describe the invention of obtaining the mutual conductance of FET by applying a DC voltage and AC signals in an imposed way to a gate or a drain. The bias conditions are not a particular feature but a matter of design variation that a person skilled in the art could have determined as required.

Claims 2, 8, 14 and 21

SOI MOS FET is a well-known FET, as described in document 3, and there would be no particular difficulty involved in conceiving of the constitution of calculating the mutual conductance of the well-known SOI MOS FET.

Claims 5, 10, 13, 15, 17, 18, 20, 22, 24 and 25

Regulating parameters to reduce the differences between measurement values and simulated values is well known as described in document 4, and there would be no particular difficulty involved in conceiving of the constitution of calculating the mutual conductance by means of simulation and regulating the parameters by comparing the results with the mutual conductance obtained by the inventions described in documents 1 and 2. Which of the parameters should be regulated is not a significant feature but a matter of design variation that a person skilled in the art could have decided as required.

Claims 7, 12, 16, 19, 23 and 26

Applying a voltage to a substrate when measuring characteristics is well known as described in document 5, and there would be no particular difficulty involved in applying the above-mentioned well-known technology to the inventions described in documents 1 and 2.